



INSIGHT on Coinage

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EDITORIAL

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I have a simple philosophy about buying coins - one should know everything about their condition in order to make an informed purchase. I feel it is a reasonable assumption that most collectors in the 1990's would share this philosophy. That is one of the main reasons I began publishing this newsletter. With Insight, I relate many of the lessons and techniques of authentication and grading which I have learned over the years. Unfortunately, my assumption about today's collector is incorrect. As in the past, a majority of collectors and the dealers they use are still not concerned with "details" such as fraudulent chemical alterations made to a coin's surface. Within a short period of time after becoming Chief of the Photo Certified Coin Institute's Authentication Lab I discovered the status quo of the 1970's had not changed. Forget originality. People want a pretty coin at a cheap price.

Many of my frustrations with John Q. Uninformed Collector or the "Ex-pert" dealer he buys coins from result from a clash of our collector philosophy coupled with their "Crybaby Mentality". I will never understand why some dealers and collectors choose to remain in a state of ignorance when it comes to the coins they buy and sell. When they are appraised of the condition of their coins based on actual physical evidence, most of the time, they want to shoot the messenger! "Waugh, Waugh, my coins can't be whizzed, you don't know what you are saying. I've been buying coins from the same dealer for twenty years. He has full page ads. Waugh, Waugh, I paid six hundred dollars for this coin, it can't be a cleaned AU; everyone I've shown it to says it's an original beauty!

No one really likes a crusader, yet when you've discovered something important, like originality, it's hard to keep silent. It's the Chicken Little Story all over again except the sky is falling on some coin collectors who don't care and would rather cry foul! I'll keep crusading because I get sadistic enjoyment at the instant my message gets through to another collector.

BOOS AND GEMS

In January, I reported the existence of an embossed mintmark alteration on an 1888-S dollar. The ANA's Certification Service in Colorado first detected this form of alteration to Buffalo nickels. Photo's and their description of the embossing method can be found in the counterfeit detection reprints of the Numismatist magazine. What made my recent discovery so important for numismatists is that an old, yet dangerous method of alteration, previously seen ONLY on Buffalo nickels, appeared again on a different type of coin!

This story was reported accurately by the Numismatic News. However, in a Coin World article describing the new alterations to 1888-S dollars, one professional authenticator is reported to have seen many of these fakes since 1981. I DON'T BELIEVE IT.

This month's BOO goes to a Senior Authenticator working at a lab in Ohio. An embossed mintmark alteration done to a coin OTHER than a Buffalo nickel is VERY HOT NEWS as any dangerous new alteration or counterfeit should be. It is a responsibility of authenticators to alert other numismatists to new fakes within a reasonable period of time. I can only wonder why this authenticator never published an alert on Morgan dollars with embossed mintmarks ten years ago - if in fact he had ever actually seen one.

Since January, two additional 1888-S Morgan dollars with embossed mintmark alterations identical to the first have been seen at PCI. This is a very deceptive form of alteration.

GEM: The numismatic writing of Tom Becker, specifically a series of publications entitled The Truth About ... which are eight page reports on different numismatic topics. Recently I've ordered copies about Third Party Grading, Cleaning Coins, Grading Coins, and Rare Coin Dealers. They make great reading. The editorial content is informative, spiced with humorous examples to make a point. There are about twenty different titles in the series. At \$2 each, it's a numismatic bargain.

Since many collectors are either crybabies, lazy, or too cheap to order some of these reports (I took over a year to write a check for \$8 - guess I qualify on two-out-of-three counts!), with the permission of Tom Becker, I'll treat you to excerpts from his excellent report on cleaning coins. See BETWEEN THE LINES. Tom's question, "Does it matter if a coin has been cleaned if no one can detect it?", will make you think. I promise you'll enjoy reading these reports. To order, Write: Becker and Kuehnert at PO Box 735, Laconia, NH 03247.

BETWEEN THE LINES

Coin cleaning is a popular subject. Some will tell you never to clean your coins while others with equal credentials report that it is good to clean your coins at regular intervals. I believe the correct message is finally reaching numismatists: It is OK to clean your coins if you know what you are doing and clean them PROPERLY. Proper cleaning preserves coins. BUT, if there is physical evidence that the coins were cleaned, such as hairlines, you may actually have decreased their value!

If you could spend fifteen minutes with me looking at the microscopically filthy coins people send in to be encapsulated, it would break your heart. Active green corrosive films and black mixtures of dirt, oils, and corrosive residues in the designs of copper coins after they have been "brushed-up" and "restored" by "Ex-Pert" dealers and collectors of Large cents, Indians, and Lincolns. Nickels with a dull haze of oxidation or active green corrosion spots. Silver coins with green PVC film, grease from the

Mint, and dirt from light handling or circulation. Dirty gold coins with crud in design recesses which "explodes" inside a slab as they are sonic sealed. Many of these coins will eventually deteriorate further, even in a slab. If these coins were properly cleaned before being graded, they could be pushed to a higher grade (more MONEY) because of increased eye appeal. The reverse also occurs. Dirty or improperly cleaned coins are generally dropped in grade and value, although to the average collector, the eye appeal of many poorly cleaned coins will seem as good as the original!

At one authentication service I worked for in the past, the workload was small. Customers signed a waiver on the submission form which allowed cleaning if needed for authentication. I often used that release to clean a customer's coin in order to preserve it! We did such a good job that on several occasions, customers would request us to clean other coins they sent in. One man even asked if we offered a "Cleaning-Only" Service! Only once did my charity backfire. One "Crybaby" collector, spelled I.G.N.O.R.A.N.T, sent in a 1936 Proof cent purchased at auction as having "beautiful sea-green toning". You guessed it. The coin was in a vinyl flip "swimming" in green liquid PVC slime. I removed the PVC, wrote him a note about proper coin storage, and returned his coin - minus its "beautiful sea green toning". All hell broke loose. The collector claimed we had switched his coin, so we purchased it to keep peace. These crybabies are still out there so it takes great restraint to ignore problems on coins and seal them anyway. It's sad for a majority of collectors who would wish to have their coins properly cleaned and preserved before being slabbed.

From The Truth about Cleaning Coins by Tom Becker:

* "I would suggest that you can learn a great deal about cleaning, and toning, if you do some yourself." This is a great idea. In the report, Tom outlines some chemicals and beginning experiments you can do at home to learn about cleaning. He also recommends that you leave the cleaning of your coins to the next collector who buys them!

* "With the exception of some copper and bronze coins, acetone will not change the color of the coin or remove any toning or patina from the surface." This is tricky. Acetone often will lighten up the surface of circulated coins because it removes dirt, grease, and the light haze they acquire. This becomes more obvious when only the mintmark area of a coin is cleaned! One problem with copper coins which Tom mentions is that acetone may react with other chemicals already on the coins, turning them a dark purple.

* "I would suggest that when it comes to well circulated or older coins, the grading services tend to be a bit more liberal in regard to cleaning." Completely original, properly cleaned coins are RARE except for Morgan dollars and some of our modern type coins. Poorly cleaned coins which have "toned down" with good eye appeal are accepted. Eye appeal is everything. I recently saw a buffed AU-53 Lafayette dollar in an MS-62 slab. The coin had a nice even blue grey toning. This sort of thing is commonplace! See next page.

* "Third party grading services offer quite reasonable protection against buying cleaned and retuned coins in their holders. I'm quite sure they wouldn't suggest that they have done a perfect job, but as with coin grading, they seem to be the closest thing to perfection that is currently available." Tom says he knows of at least two cases when a cleaned coin was encapsulated (the grading service purchased their mistake). Perhaps only a zealot would argue with this but it's one of the few statements in Tom's report with which I strongly disagree. The evidence is displayed at any coin show. There are too many ALTERED, BUFFED, and poorly CLEANED coins in "fresh" slabs than is reasonable to me. Eye appeal equals value, equals grade, is still the formula used by ALL the grading services. They all slab coins which are cleaned and chemically enhanced. It remains for each of you to learn what natural coins look like so your purchases can be made from a position of knowledge and you'll avoid these grading service "mistakes".

* "Certainly among non-collectors, the understanding is that bright and new looking coins are worth more than dirty and dull ones." Even the majority of professional numismatists went through an era of bright is beautiful. Twenty-five to thirty years ago, nearly everything round with a denomination on it was cleaned!

* "Not too many years ago, certain types of plastic coin storage pages oozed an oily green slime [PVC] as they aged... Previously lustrous pieces were forever dulled." This is a very important remark. Nothing will restore the dull grey surface of coins ruined by PVC. None of the chemical treatments work. They will only remove the "active" green surface residue which will eventually dull a coin's bright mint luster.

I'll never forget the experience I had the first time I tried one of the more popular products which was suppose to dissolve away PVC. A student brought an unopened shipping box containing the cleaner into my grading class. During the break, I opened the box, read the directions, and as everyone crowded around the lab sink, I applied the product to a Peace dollar with white spotting and a PVC damaged surface. We all expected it to become a bright mint-white dollar as soon as we applied the cleaner, but nothing happened! I tried again, nothing. We read the directions together and tried again - still no changes. Once PVC has etched the surface, it's ruined FOREVER. That's a long time.

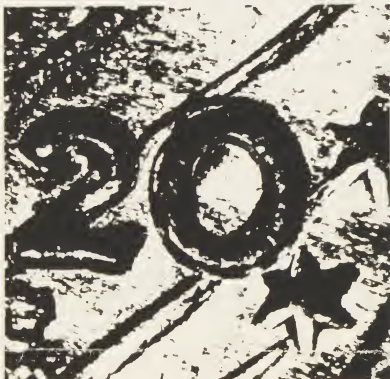
NEW VARIETY

I am beginning to believe that there is at least one doubled die variety to be found on every date and mint U.S. coin! This month we report the discovery of a doubled die reverse on the 1945 Mercury dime. The doubling is best seen in the lower left quadrant of the reverse in the leaves and letters of "United".

The value of many of these doubled die coins is low (unless you own it) because collectors prefer to find them for themselves. Less well-known varieties such as this are often worth only a slight premium in Uncirculated condition. It will be some time

before any of the doubled die coins not listed in the Redbook or Cherrypicker's Guide become sought after enough to raise their value. It will take an increased awareness on the part of coin collectors coupled with another bull market which will push up the prices for type coins, making varieties more attractive.

The next "discovery coin" has not been named yet. More examples must be found and I hope that publishing it's existence will speed the process of deciding just what this coin is! The photo below shows the date area of a 1920 Twenty dollar gold piece. Several specialists have viewed the actual coin and opinions are divided as to its status as a new twentieth century overdate. Inside the final zero there are traces of another numeral (circular in shape) while at the outside upper left are more. I believe the under-figure is a five, based on the angular shape at the outside top left of the zero. A six would make more sense, as 1916 was the last time twenty dollar coins were struck until 1920. Contact the Institute with your opinion. Happy Hunting.



Above: 1945-P doubled
die rev. 10c.
Left: 1920/? St.Gaudens

MICROSCOPICALLY SPEAKING

Surface alterations to coins is BIG BUSINESS. At coin shows many dealers pass up a night on the town and return to their hotel room's "traveling lab" in order to prepare that day's purchases for tomorrow's customer. Surface alterations can raise the eye-appeal of a coin and therefore increase its value. These alterations consist of many techniques including the removal of metal, dips, toning, surface coatings, and plating. Many of these alterations go undetected in the marketplace for long periods of time. For example, in 1985 at the Institute for Numismatic and Philatelic

Studies Grading Seminars, I taught students how to detect Morgan dollars with various types of altered surfaces; yet it was not until 1990 or 1991 that the two major grading services were exposed for regularly slabbing coins with these same types of alteration!

This month, I'll show readers an only recently seen surface alteration. It's reported here FIRST but in keeping with my usual policy, I'll quickly alert other collectors and dealers to this fake through the numismatic press. I'll bet hundreds of similar fakes are already in the slabs of major grading services. I'll also bet that authenticators in Ohio will claim to have seen this new alteration since 1981 on hundreds of Morgan dollars - ha!

Figure 1 shows the eye area of a "frosty-white" Mint State 64 or 65 Morgan dollar at 30 power. For purposes of illustration, I have gently pushed the pointed tip of a wooden toothpick along the surface above the eye. The raised, whitish build-up at the places where I stopped the toothpick (Figure 2) has all been pushed from the surface!



Figure 1



Figure 2

Toothpick tip (30X) with fibrous waxy-residue.

As a test to determine the qualities of the fake coating, I used some of the gel-like material remaining on the tip of the toothpick to touch an unaltered area of the coin. This produced a dull white imitation of Mint frost over a previously shiny bagmark!

As of this writing, fewer than a dozen coins with this alteration have been seen at PCI, all on Morgan dollars except for one Proof Barber quarter. The altered dollars seen were bagmarked original Unc's or better date AU sliders such as 1892-0 and 1881-0. Many of the altered coins had Prooflike or semi-Prooflike fields. At first glance, and even upon closer inspection, the coins look like original Unc's. When examined carefully using magnification, there are tiny red and blue silk-like fibers clinging to the relief frost. Microscopically, parts of the "frost" appears thick or in built-up clumps. Gently touching the surface relief of the coin produces a tacky feeling like wax. Without a chemical analysis, my guess is the coating on the surfaces may actually be wax!

BACK TO BASICS

* Extra-Metal (EM): Random bits of raised metal on a coin's surface which are not part of its actual design.

In the middle of this century, most counterfeit coins were produced by casting. I'll cover this process in detail at another time but for simplicity you should know that a mold was made using a genuine coin. Next it was split apart and the coin removed. The two halves of the mold were joined together again, and molten metal was poured into the void where it cooled into the shape of the original coin. The casting process left much to be desired. Most of the fake coins made this way had mold seams, weak, rough detail, depressions, and raised, rounded blobs or pimples of metal throughout their design and field. Since the earliest struck counterfeit coins shared many of these defects, "Ex-Pert" authenticators at the time condemned them as castings. Although few will admit it, as late as 1973, most professional numismatists treated a coin with any raised, random defects as very suspicious - probably a cast counterfeit! It's for this reason that Extra-Metal defects are still the most troublesome surface characteristics on coins for dealers and collectors. In the early 1970's, we first identified the differences between the EM found on early struck counterfeit gold coins or cast fakes, and that present on genuine struck coins as far back as Ancient times. While a skilled authenticator can differentiate the EM which is found on a genuine coin from the blobs and defects which appear on many counterfeits, usually it requires a stereo microscope for a positive determination.

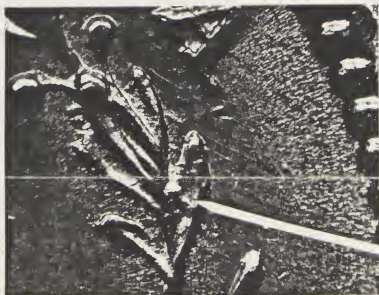
Since EM is raised on the surface of a coin, it must result from the coinage metal filling a void in the die or mold from which the coin was made. That's easy to understand for counterfeits which are cast or often made with poor quality dies; but how does EM occur on a genuine coin? We know U.S. Mint engravers wished to produce the most perfect dies possible, a true rendition of the original artist's model. In usual circumstances, the finished dies are carefully handled and stored. Causes for defective dies are varied, but usage and environmental damage still take their toll and are the major causes of EM on genuine coins.

Undoubtedly, one of the least authentic looking genuine coins is a variety of 1833 Bust quarter (See Breen #3923). This is

because the coin's entire obverse is covered with raised blobs of EM. Years ago, while I was first learning coin authentication at the ANA's Certification Service, some of these genuine 1833 coins were found in the reference collections of many dealers as well as the counterfeit collection of the Organization of International Numismatists. Indeed, several famous "Ex-Perts" were teaching that these coins were fakes made by the casting method. Today, this interesting variety is known for what it actually is: a genuine coin struck using very pitted dies.

I have seen the die vault at the Philadelphia Mint and it is hard to see how coinage dies could become so corroded. I like to joke with my students that as soon as the vault door opens a big wall of grease is exposed into which the Chief Engraver shoves his arm to retrieve a smaller blob of grease. After he wipes away all the gunk, he is holding a little greasy die - no rust. The 1833 quarter proves that my story is a little exaggerated. Coinage dies may not have been as well preserved in the past, they did rust.

One key to authenticating coins with these defects is the "Mint Quality" of the EM! The microscopic characteristics of EM defects separates genuine coins from fakes made from casting or poorer quality dies. As a simplification, sharp edged lumps or defects with microscopic die flow at their edges are seen on genuine coins while EM which is smooth or more rounded, often in lower relief, is seen on fakes. Just because a coin has EM is no reason to automatically condemn it as a fake.



The photomicrograph at left shows the reverse of a Type 1 Liberty gold dollar at 30 power. Note the irregular blob of EM (on right leaf near the stem). Part of the die broke away to cause a void which became filled as this coin was struck. The EM is sharp and shows metal flow up its sides. More of the flow lines can be seen at the rim and around other leaves.

Extra-Metal (EM)

** \$ ** ** \$ ** SEASON'S GREETINGS ** \$ ** ** \$ **

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